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Are new values and norms learned and internalized in professional school? This question and other related ones will be considered in the study of which this paper is a preliminary report. To specify norms and to consider the structure of relations in a set of norms, nursing students' prescriptions of what various kinds of personnel in a hospital should do were studied. At different stages in their educational programs, 129 students (alphas) who had already completed a 4-year liberal arts program, and 53 students who were in the process (betas) responded to questionnaires which listed tasks and requested indications of who generally does and who should do each task. Extensive data include the following findings: (1) a trend toward the classification of tasks by the respondents as intern tasks, professional nursing tasks, and technical nursing tasks, (2) a preponderance of do-responses over should-responses, and (3) greater imputation by alphas than betas of both performance of tasks and obligation to perform them to nursing students and staff nurses. It was suggested that the study of the relatively trivial prescription might be useful in the study of socialization, as a methodological exercise, and a means of generating hypotheses, as well as for the substantive relationship of the prescriptions to the professional development of the student. (JK)

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# STRUCTURE AND CHANGE OF SOME ROLE PERCEPTIONS IN NURSING SCHOOL *

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Arnold Simmel, A.B. **

One of the central problems of adult socialization is in a curious state of limbo: While it is quite clear that people change their opinions, that some habits of verbal expression about norms and values change, and that there is some correlation between such verbal expression and other behavior, little has been done to attempt to sort out causes from effects, prior events from their later manifestations, verbal compliance from changes on deeper levels of the personality. Are new values and norms learned and internalized in professional school, or are only skills developed or situations created in which pre-existing and generally shared values and norms are given an opportunity to be expressed? Many closely related questions have been thought about, written about, studied and re-studied.

Educators were, no doubt, discouraged and incensed by Jacob's survey of "Changing Values in College" (Jacob 1957), on the basis of which he concluded that "the value changes which seem to occur in college and set the college alumnus apart from others are not very great, at least for most students at most institutions." (p. 50) Moreover, Jacob continues, "such liberalizing influence as college does exert beyond the secular trend, probably operates upon a superficial rather than a fundamental level, upon voiced attitudes toward broad, impersonal social policies rather than upon the decisive standards of personal conduct and human relationships." (p. 51) On the other hand,

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"college has a socializing rather than a liberalizing impact on values: it softens an individual's extremist views and persuades him to reconsider aberrant values. It increases the tolerance potential of students towards differing beliefs, social groups and standards of conduct so that they can move about with minimum friction in a heterogeneous culture. It strengthens respect for the prevailing social order." (p. 53)

Does nursing school have similar effects? Indeed, does college have these effects? Barton (1959), making a methodological critique of Jacob's work, writes that "The most reasonable verdict ... is one of 'not proven'." The difficulties are methodological: inadequacy of the definition and measurement of concepts, shortcomings in the design and interpretation of the studies surveyed, unknown biases in the sample of institutions studied. But have no other studies come up with more positive and definite findings? Indeed, important changes have been documented, changes which probably reflect more than a verbal compliance with some institutional or other group-recommended or enforced norms. For example, numerous studies have documented decreases during college in the "authoritarianism" measured by the California F-scale and various derivatives from it. (See, for example, Webster et al 1962.) Unfortunately, the evidence that such change reflects the internalization of some important norms of the college culture is largely circumstantial. Yet, if college or other higher education experiences have such influences, is it not the moral obligation of the educator to discover just what aspects of the experience have such effects, in order to leave less to the workings of chance?

In future research, for which the work reported here is a pilot

study, these questions are to be considered. In this paper a "superficial" social counterpart of the "deep" psychological problems of value change, norm development, and internalization will be given some preliminary attention.

It is generally assumed that change does not occur in completely isolated elements of the personality, but rather as a development within a structure or pattern of elements. These patterns within the personality surely reflect social or socially conditioned patterns of behavior. Such social patterns, their structure and change are the topic of this investigation.

As a convenient starting point for the attempt to discover regularities in social behavior, sociologists pick on what general consensus in a given social system brands as "good" or "bad", or as something that <u>should</u> or <u>should not</u> be done. In other words, the initial analytic focus is provided by social values and social norms. This is convenient for two reasons: first, these notions have built into them the self-correcting and self-maintaining device of sanctions -- the failure to attain or support a value or to comply with a norm leads to negative reactions from the social surroundings or from the socialized self. Second, norms and values, and the sanctions attached to them, are some of the elements of social systems most intimately incorporated into personalities. But while the mechanism of the internalization of norms has been discussed a good deal theoretically, its empirical documentation is one of the genuinely underdeveloped areas of social research. One aspect of an empirical sociological inquiry into this matter would certainly be an attempt to establish what, in fact, are the norms of a given social system. What is it that aspirants to membership in the system may be expected

to learn and perhaps to internalize? Social research has not followed up with empirical specification what theoretical thinking has indeed made plausible. Theoretical discussions of norms and their internalization have not usually had their empirical basis in surveys of empirical norms and values. Reliance has been placed, instead, on surveys or reports on what is usually done. There are, of course, two theorems or empirical generalizations which are tacitly assumed: (1) that what is generally done, will be generally expected, and conversely (2) that what is generally expected, will in general be done. Unquestionably true, these theorems are likely to maintain in comfort, and mislead, the researcher who will not brave the plunge into the bracing cold water of specific, empirical, verifiable data.

The aim of this paper is to specify some norms or the development of prescriptions into norms, and to consider the structure of relations in a set of norms which is being, to a greater or lesser degree, adopted or rejected by one group of aspirants to membership in a profession.

## THE QUESTIONNAIRE AND THE RESPONDENTS *

The norms which were studied are prescriptions for what various people in a hospital should do. They may be looked upon as parts of the definitions of various statuses -- those of staff nurse, head nurse, supervisor, nursing student, practical nurse, nurse's aid, orderly, intern and resident -- or as parts of the definitions of various roles -- primarily the roles of these various statuses vis-a-

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* This questionnaire is a modified version of a questionnaire used in the Internship and Residency Study, Bureau of Applied Social Research, Columbia University, 1960. Mrs. Emily Mumford, Ph.D. and Mrs. Theresa Rogers suggested its inclusion in the bundle of questionnaires which were administered as a pilot study of attitude change in nursing students.

vis the patient, but also their roles vis-a-vis the patient's family, vis-a-vis the physician, and by implication, vis-a-vis each other. A questionnaire was administered to nursing students which began with the following instruction:

> Thinking primarily about ward patients, please indicate
>
> a) The people you believe actually perform the following tasks or functions most often in this hospital.
>
> b) The people you think <u>ideally should</u> perform the tasks or functions in this hospital.

The answer form is reproduced on the next page. Note that for each of eleven tasks the students were asked to circle the abbreviations corresponding to the classes of personnel who were thought by the respondent most commonly to perform the task or who "ideally should perform this task". In each case, the respondent could, theoretically, circle all of the response categories, or none. (See Note 1 at end of paper.)

This questionnaire, referred to as "Tasks on the Ward", was administered three times: Wave 1 in October 1962, Wave 2 in May 1963 and Wave 3 in May 1965. One group of students participated on all three occasions, one group on only the first two, and one group on only the third. The student body at the Department of Nursing, Faculty of Medicine, Columbia University consists of two groups who differ somewhat in terms of both their background and of the program they follow in nursing school. Group A consists of students who have completed a liberal arts course in a four-year college. Group B consists of students who have not graduated from college, but have completed at least two years of liberal arts at the college level. To

TASKS ON THE WARD: WHO DOES AND WHO SHOULD DO THEM

The following abbreviations are used below: Sup-Supervisor; HN-Head Nurse; ST-Staff Nurse; PN-Practical Nurse; NS-Nursing Student; NA-Nurses Aide; O-Orderly; Int-Intern; Res-Resident

THINKING PRIMARILY ABOUT WARD PATIENTS, PLEASE INDICATE:

| Task No. | Who do you think actually does perform this task most often here? Circle as many as apply | Task or Function | Who do you think ideally should perform this task? Circle as many as apply. |
|---|---|---|---|
| 4. | Sup HN ST PN NS NA O Res Int | Describes what a patient might expect from a procedure to be performed on him. | Sup HN ST PN NS NA O Res Int |
| 3. | Sup HN ST PN NS NA O Res Int | Informs the patient about new medications that have been ordered. | Sup HN ST PN NS NA O Res Int |
| 5. | Sup HN ST PN NS NA O Res Int | Talks to a patient about how he is to manage his daily life after discharge. | Sup HN ST PN NS NA O Res Int |
| 1. | Sup HN ST PN NS NA O Res Int | Talks with a patient's family about his current state. | Sup HN ST PN NS NA O Res Int |
| 8. | Sup HN ST PN NS NA O Res Int | Reports about changes in the patient's emotional state. | Sup HN ST PN NS NA O Res Int |
| 7. | Sup HN ST PN NS NA O Res Int | Enters a note on the patient's Kardex about patient's reaction to the hospital. | Sup HN ST PN NS NA O Res Int |
| 6. | Sup HN ST PN NS NA O Res Int | Interprets what the physician has said to the patient. | Sup HN ST PN NS NA O Res Int |
| 10. | Sup HN ST PN NS NA O Res Int | Gives the patient a bath. | Sup HN ST PN NS NA O Res Int |
| 2. | Sup HN ST PN NS NA O Res Int | Speaks to the patient who doesn't follow necessary hospital regulations. | Sup HN ST PN NS NA O Res Int |
| 11. | Sup HN ST PN NS NA O Res Int | Helps the patient feed himself when he has difficulty eating. | Sup HN ST PN NS NA O Res Int |
| 9. | Sup HN ST PN NS NA O Res Int | Comforts the patient who is crying. | Sup HN ST PN NS NA O Res Int |

avoid confusing the group names with academic grades, the members of these two groups will here be referred to as "Alphas" and "Betas" respectively. The program for the Alphas is somewhat more intensive and somewhat shorter than that for the Betas. Accordingly, while the Betas who entered in September 1962 graduated in May 1965 and therefore were present for the three administrations of the Tasks questionnaire, the Alphas who entered in September 1962 graduated in August 1964 and responded to the Tasks questionnaire only at the beginning and at the end of their first year. (See Note 2.) However, the Alphas of the following cohort who entered in September 1963 and graduated in August 1965, were near graduation when they took the Tasks questionnaire in May 1965 together with the Betas who were about to graduate. There were 129 students included in the B-group which, because of its relatively large size and its three-fold participation must be considered the principal study sample. The first A-group had 25 members, the later one 28.

## CHARACTERIZATION OF THE TASKS IN TERMS OF THE MOST FREQUENT RESPONSES

First, it seems appropriate to present in rough form what appear to be relatively unanimous perceptions of who does each task and norms about who should do them. "Relative unanimity" is arbitrarily defined as any response which is given by more than two thirds of the respondents. Since the object of this first reference to data is to give the reader an impression of the tasks in terms of who at the Columbia University Medical Center actually does them and who, in fact, is expected to do them, it is reasonable to report the students' most mature judgment. Accordingly, the data presented here derive from the questionnaires administered at the end of the students' third year. Only the responses of the B-group were used to construct

Table 1. Comparing the corresponding responses of the Alphas at the end of their first year, or the responses of the Alphas of the next cohort at the end of <u>their</u> second year, one finds but slight deviations from the "crude unanimity" pattern given here for the Betas.

Table 1. Relatively Unanimous Perceptions and Prescriptions

"Relative Unanimity" means 66.7% or more of the respondents agree.

Group B at end of third year (Wave 3).

| Task | Who Does It | Who Should Do It |
|---|---|---|
| 1. Talks with a patient's family about his current state. | Int | Int |
| 2. Speaks to the Patient who doesn't follow necessary hospital regulations. | HN | Int HN |
| 3. Informs the patient about new medications that have been ordered. | ST NS | Int |
| 4. Describes what a patient might expect from a procedure to be performed on him. | ST NS | Int ST NS |
| 5. Talks to a patient about how he is to manage his daily life after discharge. | NS | Int HN ST NS |
| 6. Interprets what the physician has said to the patient. | ST NS | ST NS |
| 7. Enters a note on the patient's Kardex about patient's reaction to the hospital. | - - - - - - | HN ST NS |
| 8. Reports about changes in the patient's emotional state. | NS | HN ST NS |
| 9. Comforts the patient who is crying. | ST NS | HN ST NS |
| 10. Gives the patient a bath. | ST NS | ST NS PN |
| 11. Helps the patient feed himself when he has difficulty eating. | NS NA | ST NS PN NA |

One thing is immediately obvious: the pattern describing who does the various tasks is by no means identical with the pattern prescribing who should do them. Clearly there are students who see people in various positions not doing the tasks that they should do. This is so for all tasks but #1 and #6, and the crudeness of this particular way of summarizing the data does not preclude the possibility that tasks #1 and #6 follow a similar pattern. Two thirds of the respondents expect interns and head nurses to do five of the tasks, but describe them as doing only one. The staff nurse is expected to do no less than eight of the tasks, but she is seen as doing only five. The nursing student is assigned eight tasks -- note that they are the same eight as are assigned to the staff nurse -- but in contrast to the staff nurse the nursing student is also seen as doing eight tasks. Nonetheless, her score is not perfect. She has done one thing she ought not to have done, and one task she has not done that she ought to have done. While she and the staff nurse make up for the intern's failure to inform the patient about new medications that have been ordered, they both fail to make notes in the patient's Kardex about the patient's reaction to the hospital. The head nurse is no better in this respect.

The division of labor on the ward comes out with remarkable clarity in the perfect absence from the table of the orderly, the resident, the supervisor. Indeed, the latter two are seen as playing a role only in regard to task #2, "Speaks to the patient who doesn't follow necessary hospital regulations." Curiously, they are seen (by about 20% of the respondents) as having an obligation also in regard to task #9, "Comforts the patient who is crying", but they are not thought to do much about it.

The discrepancies between prescriptions and descriptions might be expected to cause a good deal of dissatisfaction on the part of nursing students. What is perhaps particularly interesting is that these students are about to graduate, and thus the majority of them are about to become staff nurses themselves. Here the question of socialization enters full blown: are they just setting high standards for others, or have they genuinely made these standards part of their personalities, so that even when they are put into the position of staff nurse, their performance will more closely approximate what they now prescribe for staff nurses than what they now describe staff nurses as doing?

But is this not too big a question to ask about these somewhat trivial tasks? Surely one doesn't internalize norms about the rightness or wrongness of putting notes into a Kardex? Or are technical rules of procedure made part of the personality just as much as moral precepts? Granted that this may be the case, this is usually thought of as one of the more pathological aspects of the "bureaucratic personality" or the prig (See Merton 1957, 195-206, 352). But if it is not the case, what is the relevance of the discussion of these tasks to the question of socialization and internalization? This question may be answered in a number of ways; it seems most useful here to give some indications in terms of the relationship of ideas to observations.

First, one may think of the responses about the tasks as reflecting deeper dispositions, more general norms and values, less trivial attitudes of obligation than the tasks themselves represent. If this assumption implies the existence of a small number * of under-

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* That is, less than 11, the number of tasks.

lying variables -- obligations, perceptions, personality characteristics -- an analysis of the correlations between responses about the different tasks should provide at least clues to the reasonableness of that assumption. Some methods such as factor analysis, for example, could be counted on to provide a set of underlying or latent variables, though their identifiability with substantive aspects of the tasks or the respondents' personalities is of course, not a foregone conclusion. In this paper this approach will not be explored.

Another possibility is to consider the tasks as reflecting formally, rather than in content, the structure of deeper obligations -- that the correlations between the tasks and their changes correspond to properties of the underlying structures of norms and values and their changes. Emphasizing such formal aspects of perceptions and expectations as similarity and difference, as parallel, converging or diverging change, one may attempt to derive indicators of the underlying structure of dispositions and of its changes. The analysis presented below contains elements of this approach.

The principal argument here employed, however, is even more tenuous: the content of the task-questions and the data they generate, the manifest response frequencies, as well as their changes, can be used as the basis for generalizations that may later be useful as hypotheses for further research. Here clearly, the connection between the data and the deeper issues to which the analysis of the data is to make a contribution is left to post-hoc ingenuity of the researcher when he, by some more or less systematic trial and error method, attempts to make sense of the data. Such an unsophisticated method has the advantage that it depends on an initial confrontation with raw data, the use of nothing but the simplest and most trans-

parent indices for the abbreviation of the data, and the relative clear separation between the data and one's prior ideas.

Simple Percentages: Descriptions and Prescriptions: Task 1 as an Example.

Perceptions and prescriptions for nine different statuses in regard to eleven different tasks, representing the responses of at least two different groups of students on three different occasions, provide a very large amount of data, and a yet larger number of comparisons, surprisingly many of substantive interest. For the remainder of this paper, the only statuses to be discussed are nursing students and staff nurses. The discussion will mainly be limited to data from Waves 1 and 2, obtained at the beginning and the end of the first year respectively. Even so, the presentation of data about the whole set of tasks seems more likely to be understandable if first an example has been discussed.

Table 2 presents the percentages of respondents giving the various responses about task 1 at the beginning of nursing school experience.

Table 2. Task 1: "Talks with a patient's family about his current state"

Prescriptions and Descriptions for Nursing Students and Staff Nurses, by Group. Wave 1.

| | Percent Respondents who say | | | |
|---|---|---|---|---|
| | NURSING STUDENTS | | STAFF NURSES | |
| GROUP | DO | SHOULD | DO | SHOULD |
| B | 29 (128)* | 13 (126) | 60 (128) | 41 (126) |
| A | 54 (24) | 44 (25) | 67 (24) | 64 (25) |

* The variable bases for percentages are explained in Note 3.

Since many similar tables will be summarized below, this first table is discussed in great detail. At this stage, analysis consists of a series of comparisons which are, for this example, presented explicitly.

(1) Comparison of Descriptions and Prescriptions.

The Do-percentages are in every case larger than the corresponding Should-percentages. Thus, of the students in the B group, 29% think that nursing students do task #1, while only 13% think they should do it; 60% think that staff nurses do this task, while only 41% think they should. Similarly, in the A group, 54% think that nursing students do task #1, but only 44% think they should do it; 67% think staff nurses do it, 64% think they should. (This last difference is, of course, completely unreliable. For the sake of simplicity, no qualifications are made at this point. It is also true, though a weak truth, that these figures do not reliably contradict the general statement.) It does seem to be a fair generalization to say that talking to a patient's family about his current state is a task which both nursing students and staff nurses are thought to be doing more than should be expected. (Note 4)

(2) Comparison of what is imputed to staff nurses and to nursing students.

Staff nurses are mentioned more than nursing students. This holds true for both descriptions and prescriptions, both for group A and for group B. (In Table 2 note the following comparisons: 60 > 29; 67 > 54; 41 > 13; 64 > 44.) One may conclude that this task is considered more a staff nurse's task than a nursing student's task, both in terms of the obligations and the actual performance of people in these two positions.

(3) Comparison of the A group with the B group.

Percentages for the Alphas are larger than for the Betas. Thus, Alphas relatively more than Betas impute to nursing students and to staff nurses the performance of this task as well as the obligation to perform it. (54 > 29; 44 > 13; 67 > 60; 64 > 41)

These simple comparisons, where they hold with such regularity in a table, are a relatively strong constraint on the data; they will not appear consistently in regard to other tasks. However, they do not exhaust the regularities in this table.

(4) Comparison of the differences between groups A and B in their task imputations to nursing students and staff nurses.

The A group differs more from the B group in the percents of respondents making imputations (both descriptive and prescriptive) to nursing students than they differ in regard to imputations to staff nurses. (54-29 = 25 > 6 = 67-61; 44-12 = 32 > 24 = 64-40) In other words, the difference between the Alphas and Betas is larger when they describe or prescribe this task for nursing students, than when they respond in regard to staff nurses. There is less disagreement between Alphas and Betas in regard to staff nurses than in regard to nursing students.

(5) Comparison of differences between staff nurses and nursing students as objects of the imputations made by Alphas and Betas.

Task 1 is imputed more to staff nurses than to nursing students, as indicated in comparison 2, but the differences between the percentages of respondents mentioning staff nurses and nursing students are

larger in the B group than in the A group. In other words, differences between the staff nurse and the nursing student are larger in the eyes of Betas than in the eyes of Alphas, both in regard to their activities and their obligations.
(61-29 = 32 > 13 = 67-54; 40-13 = 27 > 20 = 64-44)

The last two comparisons of differences, (4) and (5), appear to have different substantive meanings: the first distinguishes the A group from the B group in terms of the difference of their relative assessments of the nursing student and the staff nurse, while the second distinguishes between nursing students and staff nurses in terms of the differences between Alphas' and Betas' assessment of them. Perhaps this formulation of the matter makes it plausible that the two comparisons are logically equivalent, which in fact they are (provided only that all the differences are positive, as is the case here, or that all differences are negative.). This fact, which struck the writer with some surprise, is included here as a warning: in the detailed analysis of data, even where statements appear to have different substantive meanings, care is required to distinguish independent facts from tautologies. (See Note 5)

Descriptions and Prescriptions: Comparison of 11 Tasks.

Table 3 presents for all eleven tasks the data given for task 1 in Table 2. In the previous section the various percentages referring to a single task were compared. Here comparisons between corresponding percentages of the different tasks brings out some major differences between them.

A relatively clear-cut division of the eleven tasks into three groups can be read directly off the colums giving the percentages for

Table 3. Percentages of Respondents in Group A and B who say for each task whether Nursing Students or Staff Nurses do it or should do it. Wave 1.

| Task No. | Group | Task | Nursing Student Do | Nursing Student Should | Staff Nurse Do | Staff Nurse Should |
|---|---|---|---|---|---|---|
| 1 | B | Talks with a patient's family about his current state. | 29 | 12 | 61 | 40 |
| | A | | 54 | 44 | 67 | 64 |
| 2 | B | Speaks to the Patient who doesn't follow necessary hospital regulations. | 32 | 22 | 57 | 47 |
| | A | | 30 | 48 | 46 | 65 |
| 3 | B | Informs the patient about new medications that have been ordered. | 41 | 15 | 75 | 38 |
| | A | | 30 | 32 | 70 | 48 |
| 4 | B | Describes what a patient might expect from a procedure to be performed on him. | 69 | 42 | 77 | 66 |
| | A | | 71 | 60 | 75 | 64 |
| 5 | B | Talks to patient about how he is to manage his daily life after discharge. | 64 | 44 | 78 | 81 |
| | A | | 82 | 72 | 86 | 92 |
| 6 | B | Interprets what the physician has said to the patient. | 80 | 61 | 88 | 85 |
| | A | | 70 | 68 | 70 | 68 |
| 7 | B | Enters a Note on the patient's Kardex about patient's reaction to the hospital. | 83 | 76 | 79 | 81 |
| | A | | 79 | 92 | 80 | 84 |
| 8 | B | Reports about changes in the patient's emotional state. | 94 | 90 | 85 | 88 |
| | A | | 95 | 96 | 95 | 92 |
| 9 | B | Comforts the patient who is crying. | 95 | 93 | 78 | 92 |
| | A | | 92 | 92 | 79 | 84 |
| 10. | B | Gives the patient a bath. | 96 | 96 | 56 | 65 |
| | A | | 96 | 100 | 54 | 76 |
| 11. | B | Helps the patient feed himself when he has difficulty eating. | 94 | 93 | 56 | 72 |
| | A | | 92 | 96 | 50 | 68 |

Should and Do responses for nursing students. Since there are five times as many Betas as Alphas, the percentages given for Betas may be expected to have far greater statistical stability, and therefore will from here on be put first in the discussion, and given heavier emphasis. Thus, for the Betas the percentages of Do-responses range between 29% and 41% for tasks 1-3; they are between 64% and 83% for tasks 4 to 7; and they are in the remarkably small range from 94% to 96% for tasks 8 to 11. Similar mutually exclusive ranges for the percentages of Should-responses of the Betas and very similar findings for the Alphas give support to the claim that this categorizing of the tasks is neither an artifact nor a chance ordering. Considering the students' most mature consideration of who does and who should do these tasks, as presented in Table 1, and considering the nature of the tasks, one might, somewhat arbitrarily yet somewhat in accord with the data, refer to tasks 1-3 as "Interns' Tasks", tasks 4-7 as "Professional Nursing Tasks", and tasks 8-11 as "Technical Nursing Tasks."

The percentages given in Table 3 for responses about staff nurses further confirm this rough categorization of tasks. At least the Should-percentages clearly distinguish between the "interns'" tasks and the "professional nursing" tasks, and for the Do-percentages there is only a small overlap. The "technical nursing tasks" seem here to fall into two groups of two, tasks #8 and #9 being essentially like one of the "professional nursing tasks", tasks #10 and #11 being attributed much less to staff nurses either as activities or as duties -- and it is easy to see why this might be the case. Bathing and feeding patients are technical nursing tasks largely delegated to sub-professional personnel, though students are also expected to do them.

The comparisons made earlier for task #1 may now be made for each of the other tasks, and the regularities found in the discussion of task #1 will facilitate a rapid overview of such regularities in the data.

(1) Comparisons of Descriptions and Prescriptions.

The preponderance of Do-responses over Should-responses was the first regularity encountered in the study of task #1 and it recurs in many places in Table 3.

The Beta's responses for the interns' tasks show this preponderance with complete regularity. For the professional nursing tasks there are only two exceptions: staff nurses are expected to do tasks #5 and #7 more than they are thought to do them. But it would probably be more appropriate to note that of the Beta's responses regarding staff nurses' activities and obligations relative to the professional nursing tasks, only task #4 ("Describes what a patient might expect from a procedure to be performed on him") has a greater difference than three percentage points between the Do-percentage and the Should-percentage. For the "technical nursing" tasks, the differences between the percents for Do and Should responses regarding nursing students, though all in the same direction, are too small to warrant mention, while for the staff nurses, relatively large differences all go in the opposite direction indicating that expectations are more frequent than perceived performance. Thus it appears to be generally true that the Betas see themselves as doing more than they should; they also see the staff nurses doing more than they should for the interns' tasks while for the technical nursing tasks, they see staff nurses doing less than they ought.

For the A-group the pattern is not so clear-cut. The pattern is reversed for task #2 ("Speaks to the patient who doesn't follow necessary hospital regulations.") and task #7 ("Enters note on the patient's Kardex about patient's reaction to the hospital."): Group A students think more that they should be done than that they are done, and this applies both to opinions about nursing students and staff nurses. Task #5 ("Talks to a patient about how he is to manage his daily life after discharge.") has a preponderance of Should-responses over Do-responses for staff nurses.

Since the relationship between the percentages of Should-responses and Do-responses is of particular relevance to the development of norms, it would be convenient to be able to refer to it in some simpler way. The ratio of these two percentages will be used in a later section to facilitate certain comparisons which would be difficult to discuss without some such condensation of the data. But first the comparisons illustrated earlier are to be concluded.

(2) Comparisons of what is imputed to staff nurses and to nursing students.

For tasks #1 to #6 (the interns' tasks and the professional nursing tasks exclusive of task #7) the percents of both Do- and Should-responses are greater when they refer to staff nurses than when they refer to nursing students; for tasks #8 to #11 (the technical nursing tasks) both the activity and the obligation is imputed more to the nursing students than to the staff nurses; and task #7 ("Enters a note on patient's Kardex) has an irregular pattern of very small differences.

Thus, the differentiation of the "technical nursing tasks" from the others is again affirmed. Besides, the relationship between responses about nursing students and responses about staff nurses is quite constant no matter whether it is a description or a prescription, no matter whether the respondents are Alphas or Betas. In view of the many differences between these types of response and classes of respondents it is reasonable to conclude that the consistencies that are so clearly in evidence have a reality beyond statistical artifact.

(3) Comparisons of the A group with the B group.

These comparisons are not quite as uniform as one might have expected after the great regularities indicated in the two previous sections. The Alphas have higher expectations of nursing students than the Betas do. This much is at least technically true for all tasks except #9. For the tasks of the first set, tasks #1-3, the Alphas also have higher expectations of the staff nurses, but otherwise, neither in regard to Should-responses nor in regard to Do-responses are there any patterns of relationships between the A and the B groups to be found. It should, however, be noted that the differences between the A and B group Should-percentages for staff nurses which are either very small or contrary to the prevailing direction, -- where the A group percentage is larger than the B percentage -- are reflected in very similar relationships between the corresponding Do-percentages. While the tasks differ in somewhat irregular fashion as to whether Do-percentages or Should-percentages are larger for the A or the B group, the direction of the differences between Do-responses of the A and B groups for responses about nursing students are almost always the same as these differences for responses about

staff nurses. The only exceptions occur where at least one of the differences is two percentage points or less.

(4) or (5). Perceived differences between staff nurses and nursing students by differences between Alphas and Betas.

The perceived differences between staff nurses and nursing students as reported by Alphas and by Betas differ for tasks #1-6 in the same way as was described earlier for task #1. Differences between the staff nurse and the nursing student are larger in the eyes of the Betas than in the eyes of the Alphas, both in regard to what they are seen as doing and what they are thought to have an obligation to do. It will be recalled that this statement is equivalent to the claim that the difference between Alphas and Betas is larger when they describe or prescribe tasks for nursing students than when they respond in regard to staff nurses.

Summary of the Initial Structure.

This rather detailed discussion of raw data has led to a number of conclusions which indicate that the pile of facts is not a completely disorderly array, but that the ideas of students that may be tapped by this questionnaire have a great deal of structure. First, it was apparent that there are many responses which are given by more than two thirds of the respondents. Even if this does reflect to some degree the tendency of the respondents to make checkmarks or to circle answer categories, that is not all there is to it, since differences between different frequencies show many regularities. The division of the eleven tasks into three categories -- the interns' tasks, the professional nursing tasks, and the technical nursing

tasks -- was done primarily on the basis of the clustering of the response percentages. For any one task it is possible to find some regularity in the relationships between the percentages of imputations of performance or obligation (that is, of Do-responses and Should-responses), between such imputations to the role or performance of nursing students and staff nurses, and between the two groups of respondents.

Thus, for the interns' and professional nursing tasks, it was found that Do-responses outnumber Should-responses, indicating perhaps a feeling that in regard to these tasks, nursing students and staff nurses do more than they are, or should be, expected to do. In regard to the technical nursing tasks there are noticeable differences between what staff nurses are expected to do and what they are thought to do, with the implication that they do less than they should. Both in terms of the descriptions given of what they do and the prescriptions given of what they should do, staff nurses are associated more than student nurses with the first six tasks, while nursing students are more mentioned in connection with the technical nursing tasks, #8-11. Finally, the principal difference between the A and the B group seems to be that the Alphas have higher expectations of the nursing students than the Betas do, and in regard to the interns' tasks, the Alphas have similarly higher expectations for the staff nurses.

These major regularities -- there are some others not mentioned in this summary -- are all the more remarkable because of the time at which these data were collected. Except for the data of Table 1, all the data discussed so far derive from the first wave of questionnaires which, it will be recalled, was administered in October

1962, just after the students arrived in nursing school, and before they had begun their clinical work. Both the perceptions of what various people do and the prescriptions of what they ought to do are those of interested and perhaps well-informed laymen, novices who to a large degree lack the particular experience which would provide a reasonable basis for these opinions. If very little change occurs in the prescriptions as the students gain experience, the claim could with some justification be made that nursing school provides only skill training and opportunities to act in accordance with norms that, in fact, everyone knows, and perhaps has internalized. The layman would, of course, not have opportunities to act in regard to these norms, but clearly norms that are internalized are not exclusively norms for one's own conduct.

However great the change that occurred within these nursing students during their first year of nursing school, it is worthwhile knowing about it.

The description of change: Task #1.

Again it seems simplest to look upon change data first in a single example. Table 4 gives the simple percentages for Do-responses and Should-responses regarding nursing students and staff-nurses, for each of the two groups of students, and for the three points in time when data of this type were collected.

Table 4. Task 1. Percentages at three time periods, Waves 1, 2, and 3. Prescriptions and Descriptions, for Nursing Students and Staff Nurses, by Group.

| | | DOES | | | SHOULD | | |
|---|---|---|---|---|---|---|---|
| Wave: | | 1 | 2 | 3 | 1 | 2 | 3 |
| NURSING STUDENT Group | B | 29 | 37 | 51 | 12 | 19 | 32 |
| | A | 54 | 43 | 41* | 44 | 29 | 30* |
| STAFF NURSE Group: | B | 61 | 58 | 61 | 40 | 35 | 53 |
| | A | 67 | 57 | 67* | 64 | 52 | 70* |

* The percents referring to Group A on Wave 3 are based on the A group graduating in August '65, who entered nursing school one year after the other students (both Alphas and Betas) in the study population. While these percents cannot be taken as equivalent to what the percents of the initial A group would have been at the end of their second year, they do provide information about what in fact were these percents of a comparable group at that stage of the program for Alphas. See Note 2.

First, it appears very clearly that opinions about the nursing students change steadily in the same direction (the Betas' up, the Alphas' down) while the activity and obligations imputed to staff nurses decline in frequency from Wave 1 to Wave 2, and rise from Wave 2 to Wave 3, for both Alphas and Betas. At the end of the first year, fewer students in both groups think that the staff nurse should talk with the patient's family about his current state; but at the end of the third year (the end of the second year of the substituted A group), the corresponding percentages exceed the percentages obtained on the two previous occasions. At least it cannot be said that there is no change; it cannot be said that the students have an unshakable conviction about this matter when they enter nursing school and never change their minds. It does not, however, preclude the possibility that whatever the student thought at the beginning of her nursing school career may not be exactly what she ends up with, having gone through various phases of unsettledness.

On the other hand, when one considers the changes in the imputations to nursing students there appear more steady and more interpretable changes. The percentages, for both descriptions of and prescriptions for the nursing student, increase in the B group and decrease in the A group. If one considers only waves 1 and 2, the percentages of the Alphas and the Betas seem to converge, the Alphas having had, at the beginning, too high expectations while the Betas

underestimated both the activities and the obligations of the student. The percentages in the B group continue to grow between the end of the first and the end of the third year, while if the two A groups interrogated at the end of their first and second years are compared, remarkably little difference is found between them in the percentages that refer to nursing students.

Note that the comparisons made earlier for one occasion maintain themselves for all three occasions. Do-responses are more frequent than the corresponding Should-responses, mentions of the staff nurse occur more often than mentions of the nursing student, and the percentages of Alphas giving any particular response tend to be larger than the corresponding percentage for the Betas.

THE SHOULD/DO RATIO.

The relationship between the percentages of Do-responses and Should-responses is of such special interest that it is useful to make up a simple index to facilitate comparisons over time and between tasks. As an indicator of group sentiment, the ratio of the number (or percentage) of respondents who say that a task should be done to the number (or percentage) of those who say it is done by students or staff nurses is convenient even if it hides the distribution of responses over the four-fold table of Do-Should response patterns. But one cannot present all possible forms of the data, and whenever one condenses it is inevitable that something is lost.

Table 5 presents the Should/Do ratios for task #1 at times 1 and 2. Comparisons can now easily be made, as were illustrated earlier for the percentages given in Table 2 for task #1. The respondents are more demanding in their attitudes to staff nurses than

to nursing students; Alphas are more demanding than Betas; the demands made on staff nurses (relative to what they are described as doing) decrease during the first year; while the demands by the A group on the nursing student decrease during this time interval, the demands of the B group increase. This last relationship may also be stated

Table 5. Should/Do Ratios. Task #1
Student Nurse and Staff Nurse. Groups A and B. Wave 1 and Wave 2.

Number giving a Should-response divided by the corresponding number giving a Do-response

| | For Nursing Students | | For Staff Nurses | |
|---|---|---|---|---|
| | Wave 1 | Wave 2 | Wave 1 | Wave 2 |
| Group B | .45 | .52 | .68 | .60 |
| Group A | .82 | .67 | .96 | .91 |

in the form: the Should/Do ratios for Nursing students change from time 1 to time 2 so as to reduce the difference between Group A and Group B. Such convergence will be a worthwhile thing to examine in tabulations for all the other tasks.

Trend analysis for all tasks.

The changes of percentages and Should/Do ratios analyzed for task #1 in the previous paragraph can now be similarly dealt with for each of the other tasks. It is important to bear in mind that so far only aggregate change has been discussed, and this section will not go beyond that. Panel studies provide an opportunity to investigate patterns of change or sequences of states that individuals go through, but for the moment the discussion is restricted to changes occurring in group A or group B, each considered as a whole.

From Table 5 one can read off the kinds of changes considered above. For the interns' and professional nursing tasks it is generally true that between waves 1 and 2 the changes of pre criptions for nursing students are greater than those for staff nurses. There are changes which are given added significance by changes in the opinions of the A group paralleling those in the B group. This was noted in the example of task #1 in which a small change between waves 1 and 2 in the prescriptions of group B for staff nurses is matched by a similar change in group A, and a large change in group B between waves 2 and 3 -- a change in the opposite direction -- has its counterpart in the difference between the percentages given by the successive group A cohorts. Such patterns of change can be found for all tasks. Besides the reassuring parallels between changes in group B and group A, and between descriptions and prescriptions there are many cases, confirmed by some such parallel, in which a monotonic increase in the percentages over the three time periods is evident. For example, both descriptions and prescriptions for staff nurses in regard to the technical nursing tasks follow this pattern. The question posed by these findings is not so much about the size of the changes as about their pattern. Only the interns' tasks are thought to be the staff nurse's duty by less than two thirds of the B students, while none of the corresponding percentages for the other tasks ever drops below 65% -- in other words, by the arbitrary "unanimity" criterion used earlier, the professional and technical nursing tasks are "unanimously" agreed to be the staff nurse's obligation at all three points in time, by both groups of students. Such unanimity regarding the obligations of nursing students exists at all three

Table 5. Response Percentages for All
for Descriptions and Prescriptions for Nursing Stude
by Wave and Group.

| TASK | WAVE: / GROUP: | NURSING STUDENTS DO 1 | DO 2 | DO 3 | S 1 |
|---|---|---|---|---|---|
| 1. Talks with a patient's family about his current emotional state. | B | 29 | 37 | 51 | 12 |
| | A | 54 | 43 | 41 | 44 |
| 2. Speaks to the patient who doesn't follow necessary hospital regulations. | B | 32 | 65 | 46 | 22 |
| | A | 30 | 29 | 38 | 48 |
| 3. Informs the patient about new medications that have been ordered. | B | 41 | 59 | 73 | 15 |
| | A | 30 | 50 | 56 | 32 |
| 4. Describes what a patient might expect from a procedure to be performed on him. | B | 69 | 83 | 95 | 42 |
| | A | 71 | 95 | 91 | 60 |
| 5. Talks to patient about how he is to manage his daily life after discharge. | B | 64 | 89 | 87 | 44 |
| | A | 82 | 91 | 78 | 72 |
| 6. Interprets what the physician has said to the patient. | B | 80 | 91 | 94 | 61 |
| | A | 70 | 95 | 85 | 68 |
| 7. Enters a note on the patient's Kardex about patient's reaction to the hospital. | B | 83 | 43 | 72 | 76 |
| | A | 79 | 50 | 61 | 92 |
| 8. Reports about changes in the patient's emotional state. | B | 94 | 97 | 98 | 90 |
| | A | 95 | 90 | 96 | 96 |
| 9. Comforts the patient who is crying. | B | 95 | 96 | 98 | 93 |
| | A | 92 | 95 | 100 | 92 |
| 10. Gives the patient a bath. | B | 96 | 100 | 99 | 96 |
| | A | 96 | 100 | 100 | 100 |
| 11. Helps the patient feed himself when he has difficulty eating. | B | 94 | 99 | 98 | 93 |
| | A | 92 | 100 | 96 | 96 |

5. Response Percentages for All Tasks, Prescriptions for Nursing Students and Staff Nurses by Wave and Group.

| NURSING STUDENTS | | | | | | STAFF NURSES | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| DO | | | SHOULD | | | DO | | | SHOULD | | |
| 1 | 2 | 3 | 1 | 2 | 3 | 1 | 2 | 3 | 1 | 2 | 3 |
| 29 | 37 | 51 | 12 | 19 | 32 | 61 | 58 | 61 | 40 | 55 | 53 |
| 54 | 43 | 41 | 44 | 29 | 30 | 67 | 57 | 67 | 64 | 52 | 70 |
| 32 | 65 | 46 | 22 | 45 | 28 | 57 | 70 | 63 | 47 | 57 | 47 |
| 30 | 29 | 38 | 48 | 48 | 30 | 46 | 72 | 77 | 65 | 72 | 59 |
| 41 | 59 | 73 | 15 | 40 | 33 | 75 | 75 | 78 | 38 | 56 | 46 |
| 30 | 50 | 56 | 32 | 33 | 51 | 70 | 70 | 79 | 48 | 48 | 71 |
| 69 | 83 | 95 | 42 | 63 | 71 | 77 | 84 | 67 | 66 | 75 | 76 |
| 71 | 95 | 91 | 60 | 90 | 74 | 75 | 76 | 79 | 64 | 86 | 90 |
| 64 | 89 | 87 | 44 | 79 | 79 | 78 | 81 | 65 | 81 | 71 | 72 |
| 82 | 91 | 78 | 72 | 81 | 74 | 86 | 72 | 85 | 92 | 91 | 90 |
| 80 | 91 | 94 | 61 | 78 | 85 | 88 | 83 | 87 | 85 | 87 | 93 |
| 70 | 95 | 85 | 68 | 90 | 69 | 70 | 80 | 88 | 68 | 90 | 100 |
| 83 | 43 | 72 | 76 | 53 | 81 | 79 | 58 | 51 | 81 | 71 | 92 |
| 79 | 50 | 61 | 92 | 62 | 74 | 80 | 45 | 53 | 84 | 81 | 93 |
| 94 | 97 | 98 | 90 | 94 | 93 | 85 | 82 | 75 | 88 | 91 | 95 |
| 95 | 90 | 96 | 96 | 91 | 82 | 95 | 90 | 78 | 92 | 91 | 96 |
| 95 | 96 | 98 | 93 | 97 | 92 | 78 | 84 | 88 | 92 | 92 | 99 |
| 92 | 95 | 100 | 92 | 96 | 97 | 79 | 86 | 93 | 84 | 96 | 100 |
| 96 | 100 | 99 | 96 | 92 | 92 | 56 | 67 | 75 | 65 | 80 | 84 |
| 96 | 100 | 100 | 100 | 100 | 96 | 54 | 81 | 67 | 76 | 91 | 100 |
| 94 | 99 | 98 | 93 | 89 | 87 | 56 | 61 | 60 | 72 | 75 | 81 |
| 92 | 100 | 96 | 96 | 95 | 96 | 50 | 72 | 67 | 68 | 81 | 100 |

time points only for the technical nursing tasks. The professional tasks are increasingly seen as the nursing student's obligation until on wave three they too pass the unanimity criterion.

Instead of prolonging the detailed analysis of patterns in the raw percentages of Table 5 -- which could still be profitably continued -- this paragraph briefly takes up the Should/Do ratios and their change over time. As may be seen in Table 6, for the B group, the Should/Do ratios for the staff nurse are almost invariably larger than the corresponding ratios for the nursing student. The ratios in the A group are almost invariably larger than the corresponding B group ratios, except for the technical nursing task attributions to staff nurses. The pattern of converging Should/Do ratios for groups A and B regarding nursing students is completely regular except for the last two tasks, bathing and helping to feed a patient. But in fact all the technical nursing tasks change so little from time 1 to time 2 in regard to nursing students, that the changes in the Should-Do ratios are also negligible.

The recurring pattern that appears of particular interest consists of two parts: first, the apparently greater sense of responsibility of the Alphas, and second, the convergence of group A and group B in their ideas of what the nursing student should do. Neither of these findings would, of course, be particularly surprising, if it had not been the case that there has been relatively much talk about the lack of change during professional education. (Davis, 1966) Of course, these changes in expectations of nursing students must be seen in the context of much smaller changes in the student's views of the obligations of the staff nurse. In a sense, this is not at all surprising, since one would surely expect those being socialized to

Table 6. Should/Do Ratios
For Nursing Student and Staff Nurse. Wave 1 and Wave 2.

Groups A and B

| Task | Group | Nursing Student | | Staff Nurse | |
|---|---|---|---|---|---|
| | | Wave 1 | Wave 2 | Wave 1 | Wave 2 |
| 1. Talks with a patient's family about his current emotional state. | B | .45 | .52 | .68 | .60 |
| | A | .82 | .67 | .96 | .91 |
| 2. Speaks to the patient who doesn't follow necessary hospital regulations. | B | .59 | .69 | .77 | .82 |
| | A | 1.66 | 1.65 | 1.41 | 1.00 |
| 3. Informs the patient about new medications that have been ordered. | B | .41 | .68 | .53 | .64 |
| | A | 1.07 | .66 | .69 | .69 |
| 4. Describes what a patient might expect from a procedure to be performed on him. | B | .60 | .76 | .87 | .90 |
| | A | .88 | .80 | 1.17 | 1.11 |
| 5. Talks to patient about how he is to manage his daily life after discharge. | B | .71 | .89 | .92 | .99 |
| | A | 1.01 | .89 | 1.28 | 1.10 |
| 6. Interprets what the physician has said to the patient. | B | .81 | .91 | .98 | 1.05 |
| | A | .97 | .95 | .97 | 1.12 |
| 7. Enters a note on the patient's Kardex about patient's reaction to the hospital. | B | .93 | 1.23 | 1.01 | 1.80 |
| | A | 1.16 | 1.24 | 1.01 | 1.80 |
| 8. Reports about changes in the patient's emotional state. | B | .96 | .97 | 1.05 | 1.00 |
| | A | 1.00 | 1.00 | .96 | 1.00 |
| 9. Comforts the patient who is crying. | B | .98 | 1.01 | 1.18 | 1.10 |
| | A | 1.00 | 1.01 | 1.06 | 1.12 |
| 10. Gives the patient a bath. | B | 1.00 | .92 | 1.16 | 1.19 |
| | A | 1.04 | 1.00 | 1.41 | 1.12 |
| 11, Helps the patient feed himself when he has difficulty eating. | B | 1.00 | .90 | 1.27 | 1.13 |
| | A | 1.03 | .95 | 1.36 | 1.12 |

change while it is quite possible that their view of what they are changing toward does not change at all. Unfortunately, the study of trends, that is, of changes in rates, gives no information about whether the changes observed in the percentages are simply the summations of uncorrelated changes occurring here and there in individuals, or whether particular patterns of individual change result in the observed percentages. In the following, and final section, one step is taken to discover what is the case in the data at hand.

## TURNOVER: PATTERNS OF CHANGE AND CAUSALITY

It would be very interesting to know to what degree ideas about what nurses do affects future ideas of what they should do, or to what degree ideas about what they should do might affect the perception of what they actually do. However, evidence of mutual influences between Do- and Should-responses crystallized out of neither the responses about nursing students, nor those about staff nurses. The data are difficult to present, and the lack of findings warrants their omission. In regard to opinions about staff nurses, even students who consistently deny that a staff nurse should do a particular task seem to be sufficiently open-minded that some change their claim that staff nurses don't do the task to a claim that they do; and conversely, a consistent description of the staff nurse as doing a task does not preclude a switch from thinking that a staff nurse should do the task to thinking that she should not do it. But stronger implications cannot be drawn from these data.

Another set of relationships in which the direction of the causation of change would be most relevant to the purposes of this study, are the relationships between the obligations imputed to nurs-

ing students and those imputed to a staff nurse. Task #6, "Interprets what the physician has said to the patient", will be taken as an example to illustrate the mutual influence of the respondents' ideas about the obligations of nursing students and staff nurses.

The direction of causality may be investigated in panel studies by comparing a number of correlated changes. For example, if it is shown that one variable changes towards greater similarity or consonance with a second variable which has remained constant, and at the same time it can be shown that when the first variable remains constant, the second variable does not make as great changes towards similarity, one might feel justified in claiming that the second variable influences the first more than vice versa. Consider now the imputation of the duty to do task #6 to nursing students as variable #1, the same imputation to staff nurses as variable #2, and for each variable take into account observations made on the first and the second wave. Each task can be given two possible responses. If a Should-response is called a "positive" response, the failure to give a Should-response may conveniently be called a "negative" response. Two possible responses observed on each of two occasions gives four possible response patterns for each variable, and tabulating the two variables against each other gives one form of the standard sixteen-fold table of panel analysis, Table 7.

Table 7. Sixteen-fold Turnover Table
Should-responses for Nursing Students and Staff Nurses
Task #6, Waves 1 and 2. Group B Students.
Three-wave participants only

| | | | Staff Nurse Should Do Task 6. | | | | |
|---|---|---|---|---|---|---|---|
| Nursing Student Should: | | Wave 1: | + | + | - | - | |
| | | Wave 2: | + | - | + | - | |
| Wave: | 1 | 2 | | | | | |
| | + | + | 47 | 2 | 3 | 0 | 52 |
| | + | - | 3 | 3 | 1 | 2 | 9 |
| | - | + | 21 | 1 | 3 | 0 | 25 |
| | - | - | 6 | 3 | 3 | 3 | 15 |
| | | | 77 | 9 | 10 | 5 | 101 |

Only the circled elements enter into the argument about the direction of causation. The circled elements in the first and in the last column of the table constitute a four-fold table in which the change in the attribution of task #6 to nursing students can be assessed when the attribution of the task to the staff nurse remains constant. The circled elements in the first and last row of the table provide the corresponding four-fold table for studying the changing perception of the staff nurse's duty, given that the response regarding the nursing student does not change.

Table 8. Four-fold change tables, with one Variable fixed: Should-responses, for Nursing Students and Staff Nurses, Wave 1 and Wave 2. Betas only. Task 6.

| Staff Nurses | | | | | | Nursing Students | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Nursing Students | | 1 | 2 | 1 | 2 | Staff Nurses | | 1 | 2 | 1 | 2 |
| 1 | 2 | - | + | + | - | | 1 | 2 | - | + | + | - |
| + | + | 3 | | 2 | | | + | + | 21 | | 3 | |
| - | - | 3 | | 3 | | | - | - | 0 | | 2 | |

In table 8, the first of these four-fold tables clearly does not show any influence of one variable on another. Changes in the attribution of task #6 to Staff Nurses are not visibly affected by a constant attribution, or non-attribution, of the task to nursing students.

The second table gives a different picture. Here it is very clear that holding steady to the notion that staff nurses should do task #6 results in disproportionately many cases of opinion change, from not attributing this task to nursing students to thinking that

it is their obligation. Thus it appears that opinions about the duties of staff nurses influence the opinions about the duties of nursing students, but not vice versa.

The same conclusion is reached from a study of all the data for tasks #1 to 7, the "interns" and "professional nursing" tasks. The "technical nursing" tasks show a slight tendency in the opposite direction: especially in the case of tasks #10 and #11, there is some indication that a steady inclination to think that nursing students should do the task results in change regarding the obligations of the staff nurse, in particular, to make it her obligation where it was not seen in this way at the beginning of nursing school.

Perusal of the data (not presented here) relating wave 2 to wave 3 (referring to the time interval from the end of the first year to the end of the third year of nursing school) indicates trends similar to those found for the interval between wave 1 and wave 2, but very much weaker. However, it must be borne in mind that the time interval between waves 2 and 3 is more than three times as long as that between waves 1 and 2.

Moreover, it should be noted that the study of change over relatively long periods of time is likely to hide very important mutual influences that may have their entire history in very much shorter intervals. Even where indications of causality are not visible in differential mutual effects over time, there is much correlation in evidence which, even if it does not provide evidence for causal connectedness, is consistent with the possibility of mutual effects. In Table 7, the numbers on the main diagonal (47, 3, 3, 3) are all slightly larger than would be expected if the Should-patterns for

nursing students and staff nurses on waves 1 and 2 were statistically independent. Small though the numbers are, the four-fold table encircled with a dotted line also indicates a preponderance of joint changes over changes in opposing directions on the part of the Should-patterns for nursing students and staff nurses. Such evidence supports other indications that the images of these two statuses are intimately intertwined in the perceptions and attitudes of students.

Some final comments.

It was claimed that the study of norms is a neglected field, especially in studies of socialization in which the question of what norms are learned seems particularly central. The data at hand had nothing to do with the higher norms, the higher ideals of the nursing profession, but rather consisted of opinions regarding some tasks that must be done every day on a hospital ward, opinions about who does these tasks, and opinions about who should do them. It was suggested that the study of such relatively trivial prescriptions, of their patterning and their change, might nonetheless have some usefulness for the study of socialization, partly as a methodological exercise, partly to generate hypotheses, partly for their substantive relationship to the development of the student into a professional.

Consideration of the simple percentages of responses indicated many regularities regarding opinions about what nursing students and staff nurses do and should do. Correlations between responses to the different tasks might very well give indications of an underlying structure of elements common to different tasks, but this line was not pursued. Instead, differences were studied in this paper between prescriptions and descriptions, between opinions about staff nurses

and opinions about nursing students, and between Alphas and Betas, the students who have had four years, and those who have had two years of college, and between points in time.

By and large students saw both staff nurses and nursing students as doing more than is or should be required of them, exceptions being confined, in the main, to the "technical nursing tasks", and in particular to the perception of the staff nurses' obligations and performance of them. Is this the common norm-learning situation? Is a perception of overcompliance in regard to the more responsible tasks necessary to gain the loyalty of prospective members of a profession or any other social system? Is this especially true in situations in which neither high levels of technical expertness nor flamboyant ritualistic charisma engages the enthusiasm and loyalty of the candidates? Are such perceptions of overcompliance on the part of role models associated with guilt feelings about the novice's own inadequacy?

Perhaps the most interesting differences between the Alphas and the Betas are the initial differences in their perceptions of both what is and what should be done, indicating a tendency of the Alphas to overestimate, relative to their later judgment, and of the Betas to underestimate; and the convergence, from wave 1 to wave 2, of the Should/Do ratios for nursing students regarding the interns' and the professional nursing tasks, again the Alphas starting with higher Should/Do ratios than the Betas.

Finally the analysis of sixteen-fold tables indicated that over the time spans studied, there was no evidence that descriptions of who does a task influence the prescriptions of who should do it any more than vice versa. However, it was shown for one task and reported

for all other tasks that prescriptions for the staff nurse influence prescriptions for nursing students. While there is no evidence here that having certain expectations for staff nurses is a pre-requisite for a student's later adoption of these expectations for herself, there is a strong implication that a student's prescription of a task to a staff nurse may be a strong force on the student to adopt this prescription for herself at a later date.

The similar, though rather weaker relationships found for the time interval between waves 2 and 3, emphasize the necessity of timing studies of change to correspond to crucial periods when the changes that one wishes to measure actually occur. It should also be pointed out explicitly that though this paper dealt in large part with prescriptions, with the anticipation that prescriptions develop into norms, the descriptions as well as the prescriptions can be thought about entirely in terms of the student's self-image. Formulating one's thinking in terms of social norms may help to keep in the foreground the fact that there is much unanimity about these tasks, and that the acquisition of norms is a social process.

## NOTES

1. Before the data are studied, it should be confessed that the questionnaire as presented here is not precisely what confronted the students the first time they encountered it. One task, that appeared third in order on the first questionnaire, was eliminated on the two subsequent "waves". Its content was "Checks with the patient to see if he understands the medical regimen he is to follow after discharge" which seemed too similar to the following task to warrant its inclusion. Moreover, on the first wave, neither PN (the practical nurse) nor O (the orderly) appeared as answer categories. Finally, two typographical details: The word "Staff" appeared as the abbreviation for "staff nurse" on all three questionnaires; here ST is used instead. Similarly, instead of NS for "nursing student", on the questionnaires appeared SN for "student nurse" a term which has all but vanished from the language of the Columbia Department of Nursing. The numbering of the tasks was not on the questionnaires, and is added here only for convenience of reference to later tabulations in which the tasks will usually be presented in the order of the assigned numerals.

2. Schedule of Participation in Task Questionnaire Study Relative to Nursing Education Program

| | Betas (N=133) | Alphas #1 (N=25) | Alphas #2(N=28) |
|---|---|---|---|
| September '62 | Entered Program | Entered Program | - - - |
| October '62 | Wave 1 | Wave 1 | - - - |
| May '63 | Wave 2 | Wave 2 | - - - |
| September '63 | - | - | Enter Program |
| August '64 | - | Graduate | - |
| May '65 | Wave 3<br>Graduate | - - - | Wave 3 |
| August '65 | - - - | - - - | Graduate. |

3. The variations in the number of students on which percentages are based require some explanation. In Table 2 the exclusions are due to a particular type of non-response which is defined somewhat arbitrarily. In check lists it is always a problem whether an absence of a check mark is indeed intended or an oversight. Normally one is completely dependent on the respondent's check marks. In the case of the tasks questionnaire it seemed not too far fetched an idea to consider as a non-response any complete neglect of the row of response categories either to the left or to the right of a task description.

Other sources of variation in the N's are due to the fact that some students dropped out, some joined their class late; on each wave a few students were absent; and finally when data are considered which combine material from different waves, only those respondents can be included who, in fact, were present on all the waves under consideration.

4. The question may be raised whether, in response to the question "Who do you think ideally should perform this task?" students would indeed express their feelings about the obligations of individuals in the various statuses, or whether they could consider the question how a division of labor might most advantageously be arranged. There are, no doubt, cues in the data which might support arguments on one side of this question or on the other. They have not been studied so far, and the assumption made is that "ideally should" is interpreted as meaning that ideal role performance includes the performance of the task in question, and the ideal role performer would feel it to be his obligation to behave in this way.

5. If Table 2 is re-written in literal form, and the comparisons 4 and 5 are written in algebraic form, their equivalence becomes obvious.

Table 2'. Percents of Respondents who say:

| | Nursing Students | | Staff Nurses | |
|---|---|---|---|---|
| | Do | Should | Do | Should |
| Group B | $s_{BD}$ | $s_{BS}$ | $t_{BD}$ | $t_{BS}$ |
| Group A | $s_{AD}$ | $s_{AS}$ | $t_{AD}$ | $t_{AS}$ |

Then if

(4) $s_{AD} - s_{BD} > t_{AD} - t_{BD}$ and $s_{AS} - s_{BS} > t_{AS} - t_{BS}$

it follows from adding $t_{BD} - s_{AD}$ to both sides of the first inequality and $t_{BS} - s_{AS}$ to both sides of the second that (5) $t_{BD} - s_{BD} > t_{AD} - s_{AD}$ and $t_{BS} - s_{BS} > t_{AS} - s_{AS}$.

The only possible hitch is that $a > b$ does not imply that the numerical value of $a$ is greater than that of $b$ if $b < 0$; and if $a < 0$, $a > b$ implies that $|a| < |b|$.

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